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Proposed Maximum Residue Limit

PMRL2014-51

Pyridaben

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Under the authority of the *Pest Control Products Act*, Health Canada's Pest Management Regulatory Agency (PMRA) is proposing to establish maximum residue limits (MRLs) for pyridaben on Crop Group 10-Revised (Citrus fruits), Crop Group 12-09 (Stone fruits), Crop Subgroup 13-07F (Small fruit vine climbing, except fuzzy kiwifruit), Crop Subgroup 13-07H (Low growing berry, except strawberry) and citrus oil to permit the import and sale of foods containing such residues.

Pyridaben is an insecticide currently registered in Canada for use on various commodities.

The PMRA must determine the quantity of residues that are likely to remain in or on the imported food commodities when pyridaben is used according to label directions in the exporting country, and that such residues will not be a concern to human health. This quantity is then legally established as an MRL on the corresponding imported commodity. An MRL applies to the identified raw agricultural food commodity as well as to any processed food product that contains it, except where separate MRLs are specified for the raw agricultural commodity and a processed product made from it.

Consultation on the proposed MRLs for pyridaben is being conducted via this document (see Next Steps). A summary of the field trial data used to support the proposed MRLs can be found in Appendix I.

To comply with Canada's international trade obligations, consultation on the proposed MRLs is also being conducted internationally by notifying the World Trade Organization, as coordinated by the Standards Council of Canada.

The proposed MRLs, to replace or be added to the MRLs already established for pyridaben, are as follows.

Table 1 Proposed Maximum Residue Limits for Pyridaben

Common Name	Residue Definition	MRL (ppm) ¹	Food Commodity
Pyridaben	4-chloro-2-(1,1-dimethylethyl)-5-[[[4-(1,1-dimethylethyl)phenyl]methyl]thio]-3(2H)-pyridazinone	10	Citrus oil
		3.0	Stone fruits (Crop Group 12-09) ²
		2.0	Small fruit vine climbing, except fuzzy kiwifruit (Crop Subgroup 13-07F) ³
		0.9	Citrus fruits (Crop Group 10-Revised), low growing berry, except strawberry (Crop Subgroup 13-07H)

¹ ppm = parts per million

² The proposed MRL for Crop Group 12-09 (Stone fruits) of 3.0 ppm is to replace the currently established MRLs of 1.3 ppm, 1.5 ppm and 1.5 ppm on sweet/tart cherries, nectarines and peaches, respectively.

³ The proposed MRL for Crop Subgroup 13-07F (Small fruit vine climbing, except fuzzy kiwifruit) of 2.0 ppm is to replace the currently established MRL of 0.3 ppm on grapes.

MRLs are proposed for each commodity included in the listed crop groupings in accordance with the Residue Chemistry Crop Groups webpage in the Pesticides and Pest Management section of Health Canada's website.

MRLs established in Canada may be found using the Maximum Residue Limit Database on the Maximum Residue Limits for Pesticides webpage. The database allows users to search for established MRLs, regulated under the *Pest Control Products Act*, both for pesticides or for food commodities.

International Situation and Trade Implications

Table 2 compares the MRLs proposed for pyridaben in Canada with corresponding American tolerances and Codex MRLs.¹ American tolerances are listed in the Electronic Code of Federal Regulations, 40 CFR Part 180, by pesticide. A listing of established Codex MRLs is available on the Codex Alimentarius Pesticide Residues in Food website, by pesticide or commodity.

Table 2 Comparison of Canadian MRLs, American Tolerances and Codex MRLs (where different)

Food Commodity	Canadian MRL (ppm)	American Tolerance (ppm)	Codex MRL (ppm)
Stone fruits (Crop Group 12-09)	3.0	2.5 (Stone Fruit, Crop Group 12)	No MRL established
Small fruit vine climbing, except fuzzy kiwifruit (Crop Subgroup 13-07F)	2.0	1.5 (Grape)	No MRL established
Citrus fruits (Crop Group 10-Revised)	0.9	0.5 (Citrus)	No MRL established
Low growing berry, except strawberry (Crop Subgroup 13-07H)	0.9	0.5 (Cranberry)	No MRL established

¹ The Codex Alimentarius Commission is an international organization under the auspices of the United Nations that develops international food standards, including MRLs.

Next Steps

The PMRA invites the public to submit written comments on the proposed MRLs for pyridaben up to 75 days from the date of publication of this document. Please forward your comments to Publications (see the contact information on the cover page of this document). The PMRA will consider all comments received before making a final decision on the proposed MRLs.

Comments received will be addressed in a separate document linked to this PMRL. The established MRLs will be legally in effect as of the date that they are entered into the Maximum Residue Limit Database.

Appendix I

Summary of Field Trial Data Used to Support the Proposed MRLs

Residue data for pyridaben in/on Crop Group 10-Revised (Citrus fruits), Crop Group 12-09 (Stone fruits), Crop Subgroup 13-07F (Small fruit vine climbing, except fuzzy kiwifruit) and Crop Subgroup 13-07H (Low growing berry, except strawberry) were submitted to support the setting of maximum residue limits on these imported commodities. In addition, processing studies in treated oranges, grapes and plums were reviewed or reassessed in the framework of this submission to determine the potential for concentration of residues of pyridaben into processed commodities.

Maximum Residue Limits

The recommendation for maximum residue limits (MRLs) for pyridaben was based upon the residues observed in crop commodities treated according to exaggerated rates in the exporting country, and the guidance provided in the OECD MRL Calculator. Table A1 summarizes the residue data used to calculate the proposed MRLs for the various imported commodities.

Table A1. Summary of Field Trial and Processing Data Used to Support Maximum Residue Limits (MRLs)

Commodity	Application Method/ Total Application Rate (g a.i./ha)	Preharvest Interval (days)	Residues (ppm)		Experimental Processing Factor
			Min	Max	
Cherries	Foliar / 1090-1270	6-8	<0.05	1.28	None
Plums	Foliar / 1113-1135	7	<0.05	0.68	3.1 (prune)
Peaches	Foliar / 1109-1123	6-7	<0.05	2.36	None
Grapes	Foliar / 1120	7	0.17	1.38	0.8 (raisins), 0.06 (grape juice)
Oranges	Foliar / 1120-1680	7	<0.05	0.37	25 (orange oil), 0.10 (orange juice)
Lemons	Foliar / 1120-1680	7	0.07	0.43	None
Grapefruits	Foliar / 1120-1680	7	<0.05	0.27	None
Cranberries	Foliar / 1120	19-20	0.17	0.41	None

Following the review of all available data, MRLs as proposed in Table 1 are recommended to cover residues of pyridaben. Residues of pyridaben in these imported crop commodities at the proposed MRLs will not pose an unacceptable risk to any segment of the population.